

REMARKS/ARGUMENTS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 1-5, 7, and 8 are pending in the present application. Claims 1-3 and 5 are amended by the present amendment.

In the Outstanding Office Action, Claims 1-5 were rejected under 35 U.S.C. § 102(b) as anticipated by Ruffini (WO 0042728 A); and Claims 7 and 8 were rejected under 35 U.S.C. § 103(a) as unpatentable over Ruffini.

Applicants respectfully traverse the rejection of Claims 1-5 under 35 U.S.C. § 102(b) as anticipated by Ruffini with respect to amended independent Claim 1.

Claim 1 is directed to a radio access network system having a synchronous server and at least one node. The synchronous server includes a clock generator and a synchronous message transmitter configured to transmit a generated synchronous message to the node at regular intervals using an IP packet. The node includes a time calculator configured to obtain a time of receiving the synchronous message. The node also includes a clock correction processor configured to calculate a clock correction value in accordance with the time of receiving the synchronous message and the information regarding the clock notified by the synchronous message, and to correct a generated timing of a clock in the node in accordance with the clock correction value, wherein the time calculator is configured to measure a reception interval of the synchronous message, and the clock correction processor is configured to calculate, without using the synchronous message, the clock correction value when the reception interval of the synchronous message is more than a predetermined threshold. Independent Claims 2, 3, and 5 include similar features.

Applicants respectfully submit that Ruffini does not describe or teach a clock correction processor configured to calculate a clock correction value without using a

synchronous message when the reception interval of the synchronous message is more than a predetermined threshold.

The outstanding Office Action cited calibrating unit 22 at Ruffini as “a clock correction processor” as recited in Claim 1. However, Ruffini states at page 25, lines 8-11 “the physical requirements within this delimited network B are so well defined that the transmission time of a time stamp sent from the transmitting unit 12 to respective elements 2, 3, 4 will be known to respective elements with a given degree of certainty”. Thus, it is respectfully submitted that the specific requirements placed on this network make Ruffini distinguishable from the presently claimed invention at least because the clock correction processor, as described above, does not use the synchronous message to calculate the clock correction value when the reception interval of the synchronous message is more than a predetermined threshold.

The Office Action further asserts at page 10, last paragraph, that once the Time Error TE reaches a predetermined threshold, the time stamps are no longer needed in calculating the clock correction value. However, it is respectfully submitted that once the Time Error of Ruffini has reached the predetermined value, the clock correction has already been determined. Ruffini page 19, lines 20-22 and Figure 5 illustrate the clock correction calibration process which occurs during the second phase of the calibration evaluation period, and is completed before the time interval reaches a predetermined threshold. Additionally, during time T_1 , no tracking is required because of the strict boundaries Ruffini places on the amount of oscillator drift which is allowable. It is only when the drift exceeds these boundaries that calibration is needed.

Accordingly, as is believed to be evident from the above discussion, Ruffini fails to teach or describe a time calculator configured to measure a reception interval of the synchronous message, and a clock correction processor configured to calculate, without using

the synchronous message, a clock correction value when the reception interval of the synchronous message is more than a predetermined threshold as described in amended independent Claim 1.

Although different in scope or statutory class, amended independent Claims 2, 3, and 5 also patentably define over Ruffini for at least the same reasons discussed above for Claim 1.

Applicants respectfully traverse the rejection of Claims 7 and 8 under 35 U.S.C. § 103(a) as being unpatentable over Ruffini. As discussed above, Claim 1 describes a node including a clock correction processor which is configured to calculate, without using the regular interval synchronous message, the clock correction value when the reception interval of the synchronous message is more than a predetermined threshold. Applicants respectfully submit that Ruffini actually teaches away from this feature, because Ruffini warns that its network defines its timing requirements so well that the timing will be known within a given degree of certainty.¹ Because this claim element is absent from Ruffini, and Ruffini actually teaches away from independent Claims 1-3, and 5, applicants respectfully submit that dependent Claims 7 and 8 can not be obvious over Ruffini.

¹ Ruffini page 25, lines 8 to 11.

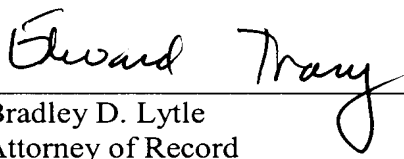
Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that Claims 1-5 and 7-8, as amended, patentably define over the asserted art. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of this rejection is therefore requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 08/07)



Bradley D. Lytle
Attorney of Record
Registration No. 40,073

Edward W. Tracy, Jr.
Attorney of Record
Registration No. 47,998

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